

amended is included. Applicant indicates below the status of all patent for the claim amendments is indicated below.

Claims 1-38 are pending. Claims 1-14 are the original patent claims and stand unamended. Claims 15-38 are added claims. Claims 15, 19, 23, 27, 30, 33 and 36 are amended herein. Claims 16-18, 20-22, 24-26, 28-29, 31-32, 34-35 and 37-38 stand unamended. Support for the amendment to claims 15, 19, 23, 27, 30, 33 and 36 deleting the recitation of "in accordance with" thus leaving "clustering a plurality of pixel data, is found at at least column 3, lines 21-28, 49-64, and column 3, line 65 - column 4, line 11".

At paragraph 1 of the Office Action of May 26, 1999, the Examiner has indicated that the original patent, or an affidavit or declaration as to loss or inaccessibility to the original patent, must be received before the reissue application can be allowed. Applicant will present either the original patent, or such an affidavit as required upon the close of prosecution in this matter.

At paragraphs 2-5 the Examiner has rejected claims 15-38 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner has objected to the recitation of "clustering in accordance with" a plurality of pixel data in each of independent claims 15, 19, 23, 27, 30, 33 and 36. Applicant has deleted "in accordance with" in each of these claims, and now recites

clustering a plurality of pixel data. Additionally, Applicant has amended the portion of claim 33 indicated by the Examiner to recite "said class being used to retrieve a class data". Applicant submits that these amendments to the claims overcome the formal rejections of the Examiner under 35 U.S.C. §112, and Applicant respectfully requests that the rejection of these claims under 35 U.S.C. §112 be withdrawn.

At paragraph 8 of the outstanding Office Action, the Examiner has rejected claims 15, 19, 22, 33, 35-36 and 38 under 35 U.S.C. §102(e) as being anticipated by Kanno et al. (U.S. Patent No. 5,229,868). Applicant respectfully traverses the rejection.

As is shown in the whole of Kanno et al., and specifically at Fig. 4, the reference signal including pixels r_1 - r_{16} are input at input image signal terminal 12, and passed through to group 19, including seven bit shift registers 20-26. As is also shown in Fig. 4, and the accompanying description thereof, these reference pixels r_1 - r_{16} are forwarded to interpolation data memory 27, which in turn forwards interpolated pixels $h1'$ - $h3'$ to selector 28, which then inserts these pixels as shown in shift registers 23 and 24, by way of example. Upon output of the higher resolution image, both the reference pixels and the interpolated pixels are output, as shown in the functioning of Fig. 4. Thus, for this reason, in the example shown in Fig. 4, reference signal r_6 is shown at output image signal terminal 15. Therefore, in addition to the interpolated

data being output, the reference data also is output at the terminal, and in the example as shown in Fig. 4, three interpolated pixels for each reference pixel are output. However, each of independent claims 15, 19, 33 and 36 rejected by the Examiner specifically require "means [or a step] for generating all of pixel data representing pixel values of said second digital image signal based upon at least said retrieved class data" (see claim 15). Thus, it is required that all of the pixel data representing pixel values of the second digital image be generated. This therefore precludes the use of any passed through reference signals from the original signal. While it is not relevant to the claims where the reference data and pixel data are positioned relative to each other, what is claimed is that none of the reference data can be passed through to the output. Rather, based on the pixel values of the first digital image, all of the pixel values of the second digital image are generated therefrom and used as output.

As noted above, however, Kanno et al. specifically passes through the reference data to the output along with interpolated data. In this manner, the invention in Kanno et al. is restricted to a situation where at least one pixel of the reference information and output information share a common location. However, in the claimed invention, this is not the case. Rather, all of the data of the second digital image are interpolated and output, this pixel data of the second image being positioned in the second image data irrespective of the

precise pixel positioning in the first digital image data. Therefore, because Kanno et al. fails to depict this feature as claimed in the independent claims noted above, Applicant respectfully requests that the rejection of independent claims 15, 19, 33 and 36 under 35 U.S.C. §102(e) be withdrawn.

Furthermore, dependent claims 22, 35 and 38 depend, either directly or indirectly, from one of independent claims 19, 33 or 36, and are therefore allowable as depending from allowable independent base claims. Additionally, each of these claims presents an independently patentable combination in and of its own right, and is therefore patentable for this additional reason. Applicant therefore similarly requests that the rejection of claims 22, 35 and 38 under 35 U.S.C. §102(e) be withdrawn.

At paragraph 13 of the outstanding Office Action, the Examiner has rejected claims 17 and 21 under 35 U.S.C. §103(a) as being unpatentable over Kanno et al. Applicant respectfully traverses the rejection.

Claim 17 depends from independent claim 15, and claim 21 depends from independent claim 19, each argued above as being patentable over Kanno et al. Applicant therefore submits that claims 17 and 21 are similarly allowable as depending from an allowable independent base claim, and additionally as presenting an independently patentable combination in and of their own right. Applicant respectfully requests that the rejection of claims 17 and 21 under 35 U.S.C. §103(a) be withdrawn.

At paragraph 15 of the outstanding Office Action, the Examiner has rejected claims 18, 23, 25, 26, 27, 29, 30 and 32 under 35 U.S.C. §103(a) as being unpatentable over Kanno et al. and further in view of Collins (U.S. Patent No. 4,587,556). Applicant respectfully traverses the rejection.

Independent claims 23, 27 and 30 include limitations similar to those noted above with respect to independent claim 15, specifically that all of the pixel data representing pixel values of the second output digital video signal are based upon at least a retrieved class data, therefore precluding the pass through of reference data as shown in Kanno et al. Because Collins fails to cure this defect of Kanno et al. noted above, Applicant submits that independent claims 23, 27 and 30 are allowable over the combination of prior art relied upon by the Examiner, and therefore respectfully requests that the rejection of claims 23, 27 and 30 under 35 U.S.C. §103(a) be withdrawn.

Furthermore, claims 18, 25, 26, 29 and 32 depend, either directly or indirectly from an independent allowable claim, and are therefore allowable as depending from an allowable independent base claim. Additionally, each of these claims depicts an independently patentable combination in and of its own right. For these reasons, Applicant respectfully requests that the rejection of claims 18, 25, 26, 29 and 32 under 35 U.S.C. §103(a) be withdrawn.

At paragraph 21 of the outstanding Office Action, the Examiner has rejected claims 16, 20, 34 and 37 under 35 U.S.C.

§103(a) as being unpatentable over Kanno et al. and further in view of Tararine et al. (U.S. Patent No. 5,048,102). Applicants respectfully traverse the rejection.

Claims 16, 20, 34 and 37 each depends from one of the independent claims noted above, and therefore is allowable as depending from an allowable independent base claim.

Additionally, because Tararine et al. fails to cure the defects noted above with respect to Kanno et al., Applicant submits that each of these claims also presents an independently patentable combination in and of its own right. Applicant therefore respectfully requests that the rejection of claims 16, 20, 34 and 37 under 35 U.S.C. §103(a) be withdrawn.

At paragraph 23 of the outstanding Office Action, the Examiner has rejected claims 24, 28 and 31 under 35 U.S.C. §103 as being unpatentable over Kanno et al. and Collins as applied to claim 23, and further in view of Tararine et al. Applicant respectfully traverses the rejection.

Claims 24, 28 and 31 each depends from an allowable independent base claim, and therefore is allowable for this reason alone. Additionally, because the addition of Collins and Tararine et al. fails to cure the defects of Kanno et al. noted above, Applicant submits that claims 24, 28 and 31 similarly present independently patentable combinations in and of their own right. Applicant therefore respectfully requests that the rejection of claims 24, 28 and 31 under 35 U.S.C. §103(a) be withdrawn.

Applicant notes with appreciation the notice that claims 1-14 are allowable over the prior art of record. To the extent the Examiner's stated reasons for allowability imply or are construed to mean that the claims are allowable over the prior art of record because the Examiner believes the claims should be interpreted to include one or more features or limitations not recited therein, Applicant's attorney disagrees with such an interpretation. It is the intent of Applicant, by his attorney, to construe the allowed claims so as to cover the invention disclosed in the instant application and all equivalents to which the claimed invention is entitled.

CONCLUSION

Statements appearing above in respect to the disclosures and the cited references represent the present opinion of Applicant's undersigned attorney and, in the event that the Examiner disagrees with any of such opinions, it is respectfully requested that the Examiner specifically indicate those portions of the reference providing a basis for a contrary view.

Applicant has made a diligent effort to place claims 15-38 in condition for allowance, and notice of the allowance of these claims in addition to claims 1-14 is earnestly solicited. If the Examiner is unable to issue a Notice of Allowance regarding these claims, the Examiner is requested to contact the undersigned attorney in order to discuss any further outstanding issues.


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Early and favorable consideration is respectfully
requested.

Please charge additional fees incurred by reason of
this response or credit any overpayment to Deposit Account
No. 50-0320.

Respectfully submitted,

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